

**Trade and Industrial Education**  
**Course: Aviation Maintenance I**  
**Course Code # 5703**  
**2 Credits**

**School Year** \_\_\_\_\_

**Term:** \_\_\_\_ **Fall** \_\_\_\_ **Spring**

Student:	Grade:
Teacher:	School:
Number of Competencies in Course: <b>38</b>	
Number of Competencies Mastered:	
Percent of Competencies Mastered:	

**STANDARD 1.0: Students will demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
1.1	Cultivate positive leadership skills.			
1.2	Participate in Skill USA-VICA as an integral part of classroom instruction.			
1.3	Assess situations and apply the decision-making process within the school, community, and workplace.			
1.4	Demonstrate the ability to work cooperatively with others.			

**STANDARD 2.0: Students will trace the growth and development of the aviation maintenance technology industry to gain insight regarding past, current, and future trends of the industry.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
2.1	Analyze the evolution of the aviation industry.			
2.2	Examine the roles of people in history who helped to shape the aviation industry.			

**STANDARD 3.0: Students will evaluate career opportunities and career paths within the aviation maintenance technology industry.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
3.1	Explore the titles, roles, and functions of individuals engaged in aviation careers, including opportunities for advancement.			
3.2	Investigate employment and entrepreneurial opportunities.			

**STANDARD 4.0: Students will apply math and basic physics skills to aviation maintenance technology.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
4.1	Demonstrate mathematical skills required for the field of aviation maintenance, including basic skills, algebra skills, and geometry skills.			
4.2	Examine and apply basic physics concepts to aviation, including principles of simple machines; sound, fluid, and heat dynamics; basic aerodynamics; aircraft structures; and theory of flight.			

**STANDARD 5.0: Students will safely evaluate basic electrical/electronic circuits.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
5.1	Examine series, parallel and series-parallel circuits, including the application of Ohm's law.			
5.2	Perform calculations and perform measurements using voltmeters, amp meters, ohmmeters and meggers.			

**STANDARD 6.0: Students will interpret and use drawings symbols, schematic diagrams, blueprints and sketch basic repairs for aviation structures.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
6.1	Interpret aviation drawings, blueprints, symbols, and schematic diagrams.			
6.2	Use and create diagrams and drawings for repairs and alterations.			

**STANDARD 7.0: Student will weigh aircraft and work with fluid lines and fittings.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
7.1	Analyze the importance of aircraft weight and balance and calculate and record weighing information.			
7.2	Fabricate and install rigid and flexible fluid lines and fittings.			

**STANDARD 8.0: Students will analyze aircraft materials use and care and ground operations procedures.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
8.1	Examine the use and care of various covering materials, finishes, and wood structures including approved methods and procedures.			
8.2	Analyze ground operation and servicing.			
8.3	Demonstrate proper procedures for aircraft cleaning and corrosion control.			

**STANDARD 9.0: Students will analyze Federal Aviation (FAA) Regulations that govern certified Aircraft Technicians and use required maintenance forms, records, and relevant publications.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
9.1	Interpret Federal Aviation Administration (FAA) regulations affecting aircraft maintenance technicians.			
9.2	Access and use aircraft manufacturers' publications and complete forms and records.			

**STANDARD 10.0: Students will demonstrate communication skills required in the aviation maintenance industry.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
10.1	Communicate and comprehend oral and written information typically occurring in the aviation maintenance workplace.			
10.2	Solve problems and make decisions using a logical process.			
10.3	Use teamwork skills to accomplish goals, solve problems, and manage conflict within groups.			

**STANDARD 11.0: Students will demonstrate interpersonal and employability skills required in the aviation maintenance industry.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
11.1	Infer relationships between work ethics and organizational and personal job success.			
11.2	Demonstrate attitudes conducive to workplace success.			
11.3	Maintain a neat and orderly work area.			
11.4	Assess implications of diversity for communities and workplaces.			
11.5	Exhibit positive employability behaviors.			
11.6	Develop individual time management and work sequencing skills.			

**STANDARD 12.0: Students will demonstrate automotive technology safety practices, including Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA) requirements for an aviation maintenance facility.**

Learning Expectations		Check the appropriate Mastery or Non-Mastery column	Mastery	Non-Mastery
12.1	Determine the safe and correct application for chemicals used in brake systems.			
12.2	Use protective clothing and safety equipment.			
12.3	Use fire protection equipment.			
12.4	Follow OSHA and EPA regulations and manufacturer specifications affecting brake systems technology.			
12.5	Respond to safety communications referring to brake systems.			
12.6	Pass with 100 % accuracy a written examination relating to safety issues.			
12.7	Pass with 100% accuracy a performance examination relating to safety.			
12.8	Maintain a portfolio record of written safety examinations and equipment examinations for which the student has passed an operational checkout by the instructor.			

Additional Comments \_\_\_\_\_